

Monetary financing in historical perspective: the case of Canada, 1930-1970

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Abstract

Monetary financing – the funding of state expenditure via the creation of new money rather than through taxation or borrowing – has become a taboo policy instrument in advanced economies. It is generally associated with dangerously high inflation and/or war. Relatedly, a key institutional feature of modern independent central banks is that they are not obligated to support government expenditure via money creation. Since the financial crisis of 2007-08, however, unorthodox monetary policies, in particular Quantitative Easing, coupled with stagnant growth and high levels of public and private debt have led to questions over the monetary financing taboo. Debates on the topic have so far been highly theoretical and there is little research in to historical examples of monetary financing and the social and political dynamics surrounding it. This paper analyses one of the most significant 20th century cases: Canada from the period after the Great Depression up until the monetarist revolution of the 1970s. The period was a successful one for the Canadian economy, with high growth and employment and manageable inflation. It offers some interesting insights in to the relationship between states and central banks and present day discussions around the governance of money creation.

1. Introduction

Monetary financing refers to the funding of state expenditure via the creation of new money, as opposed to taxation or government borrowing from market investors via the issuance of bonds. In modern economies, there is an institutional separation between the money creating arm of the state - central banks – and finance ministries, meaning that monetary financing requires cooperation between these two public institutions. Although monetary financing in various forms was not uncommon in the development of capitalist economies it is generally no longer used as a policy instrument by modern nation states. It is widely associated with dangerously high inflation and/or war. National and international financial regulations governing many advanced countries prohibit the activity to varying degrees. The freedom of central banks not to support government expenditure is seen as an important indicator of their independence. Monetary financing is one of the ‘great taboos’ of modern economic policy (Turner 2014).

The financial crisis of 2008-09 and the policy response that has followed has led to a questioning of this taboo. Three key developments can be identified.

Firstly, the crisis appeared to be largely the result of excessive commercial bank credit and money creation¹ flowing in to real estate and related financial instruments. This cast doubt on the ‘efficient markets hypothesis’ and the idea that a free market in credit and finance and untrammelled financial innovation would spread risk rather than build it. Second, central banks, as part of efforts to rescue the banking sector and kick-start stagnant economies in the post-crisis period, have engaged in unorthodox new policies involving the creation of central bank money on a vast scale to fund the purchase of financial assets via ‘Quantitative Easing’ (QE) as short-term interest rates reached the ‘zero lower-bound’. The aim of such policies is to stimulate demand by lowering the cost of longer term debt for investors and households. Prominent economists and establishment figures have questioned the economic effectiveness of QE programs and its distributive consequences. In particular, given the very high levels of public and private sector debt in advanced economies, it is questionable whether policies designed to create even more debt (by lowering long-term interest rates) are the appropriate solution, but might instead generate asset bubbles (Turner and Lund 2015).

Thirdly, and relatedly, the post-crisis era is one with very high levels of public debt relative to GDP. When accompanied by even moderate levels of inflation, large scale public debt purchases by a central bank to keep down interest rates can create negative real interest rates that enables governments to significantly reduce public deficits. This was a feature of the 1945-1970 period for both developed and emerging market economies (Reinhart and Sbrancia (2011); Sbrancia (2011).) Under these conditions, central bank operations in public sector debt management and interest rate

¹ Bank’s create 97% of the money supply in modern economies via their lending activities. See Jakab and Kumhof (2015); McLeay, et al. (2014); Ryan-Collins, et al. (2011); Werner (2014); Ryan-Collins, et al. (2011);

setting take on much greater fiscal significance, again raising the level of scrutiny of central banks' independence and the fiscal-monetary divide (Goodhart 2010: 5).

Drawing on Weber, Keynes, Simmel and Schumpeter, a sociological or political economy critique of the existing neo-liberal 'monetary order' has emerged in the last decades, emphasizing that capitalist credit-money is a social relationship rather than, as theorized in mainstream economics, a commodity-like and neutral 'veil' over real exchange (Ingham 1996; 2004; Pixley 2004; Pixley and Harcourt 2013). As such, its production and allocation are subject to an ongoing struggle for resources between competing classes. These authors have emphasized the power of the creditor class – banks and financial sector generally - to naturalise (Carruthers and Babb 1996) and universalise their dominance over the production of money through the creation of institutions and policies that appear economically optimal or neutral but in fact support their interests over others.

Examples include 'independent' central banks focused on achieving low consumer price inflation that maintains the value of creditor's assets (loans) over and above policies that support investment and employment or prevent rapid rises in asset prices, including house prices (Pixley, et al. 2013). The prohibition of monetary financing and subjection of fiscal policy to 'market discipline', which in reality means forcing states to borrow from the financial class (Ingham 2004) would equally fit within this theoretical critique. Quantitative Easing – which involves the creation of public money to stimulate financial markets – can also be seen as an example of such a policy since it supports banks and maintains the value of financial (and real estate) assets to a much greater extent than it boosts investment in the real economy (Mann 2010).

Economists and elite policy-makers have also not been shy to wade in to the problems with post-crisis monetary policies. Many have gone further than just calling for better regulation of banks but questioned their monopoly on money creation, suggesting central banks should instead consider financing government spending and deficits (Baldwin 2016; Muellbauer 2014; Reichlin, et al. 2013; Turner 2015).² Others have gone even further and claimed that there could be major advantages to limiting money creation to central banks or governments public bodies, with banks reduced to their 'text-book' role of intermediating between savers and borrowers, building on the ideas that came out the Great Depression (Benes and Kumhof 2012; Dyson and Jackson 2013; Wolf 2014).

Nevertheless, with some exceptions³, the focus of debates has been mainly theoretical – for example, the question of whether so called 'helicopter money' (the crediting of

² See also the recent letter to the Guardian signed by 35 economists and academics calling for the Bank of England and Treasury to change their QE policy and create money directly for households or to fund infrastructure investment: <http://www.theguardian.com/politics/2016/aug/03/a-post-brexit-economic-policy-reset-for-the-uk-is-essential>

³ See (Ingham, et al. 2016) and the articles in the special issue of the Cambridge Journal of Economics, 'Cranks' and 'brave heretics': rethinking money and banking after the Great Financial Crisis' for a range of different

household accounts with central bank money) would stimulate consumer spending or whether consumers, expecting a future rise in inflation, would hoard the new money and dampen any such stimulus. (Baldwin 2016). Less attention has been paid, either by social theorists or prominent economists, to the social, political or institutional arrangements that might support effective and non-inflationary monetary financing. This is despite the fact that the aftermath of the Great Depression saw a number of examples of monetary financing that arguably fit this category, including in New Zealand, Japan and Canada (Brown 2013). In trying to understand the social networks and institutions that govern monetary production (Dodd 1994:155), this period is thus worthy of deeper examination.

This paper analyses the Canadian case, from the period after the Great Depression up until the monetarist revolution of the 1970s. Since the period was a successful one for the Canadian economy, with high growth and employment and manageable inflation, the case provides some interesting insights relevant to present debates around monetary financing. In particular it challenges the widely held assumptions around the need for full fiscal-monetary policy separation and illustrates how a central bank can work effectively with a ministry of finance to manage the national debt, the bond market and fiscal policy to support a growing economy. The case is also pertinent given the very low interest rates and very high debt-to-GDP ratios Canada was experiencing after World War 2 – similar to those faced by many advanced economies today.

The paper is laid out as follows. Section 2 briefly reviews the academic literature on money financing and lays out how the consensus ‘taboo view’ has emerged. Section 3 lays out the case study of Canada in the 1930-1970 period. Section 4 concludes with some reflections on the Canadian case for debates and future research on monetary financing.

2. Monetary financing in theoretical and historical context

The current prohibition on monetary financing is somewhat of a paradox given that historical, anthropological and numismatic evidence points to the origins of money and money creation in the role of the state or related authority and its ability to determine the unit of account function of money via the imposition of liabilities upon citizens (Ingham 2004; Innes 1913; Keynes 1930; Knapp 1905; Weber 1964 [1922]). Prior to the invention of modern banking at the end of the seventeenth century, many states used simple accounting techniques, such as Tally Sticks, minted coins or printed paper money to fund their activities and ensured their widespread adoption through taxation {Knapp, 1905 #428; Grierson, 1978 #1883; Even during periods when gold and silver coinage dominated as the monetary form, it was still the sovereign that determined the weight and denominations that determined the value of such metal in exchange {Wray, 1998 #1957: 18-38}.

heterodox and institutional contributions to how the financial system should be re-engineered post the financial crisis, available online at <http://cje.oxfordjournals.org/content/40/5.toc>

Public money never dominated economies, however, and personal, bi-lateral credit moneys always existed alongside and in competition with, state-issued moneys up until the seventeenth century (Graeber 2011:326-336). Modern capitalist credit-money emerged as a hybrid of these two forms as merchants' bills of exchange were gradually used to settle third-party debts and be widely used across commercial networks and London's Goldsmiths' deposits also became widely exchangeable {Ingham, 2004 #8:133;Carruthers, 1999 #2160:136;Martin, 2014 #2205-121}. From here it was a short step for such bills to become issued as impersonal bank IOUs, making "the private capitalistic financing of enterprise on a large scale a possibility" (Ingham 2004: 108).

The first central banks emerged in the 17th century to support sovereigns wishing to borrow heavily from merchants and goldsmiths to fund wars through bond issuance, although the practice emerged much earlier in the city states of Northern Italy to fund expansionary trade without the need for coinage (Ferguson 2008: 70-73). The role of central banks has altered through history, varying between supporting government finance (particular during war periods), maintaining price stability subject to the monetary regime in operation (e.g. gold standard, inflation target) and financial stability, in particular acting as a lender of last resort to support commercial banks and financial development (Goodhart 2010: 1).

In modern banking theory, however, the role of the central bank in supporting the state and financial development more generally is downplayed (Epstein 2006). Its primary role is assumed to be that of a clearing house (Goodhart 1988) with the issuance of reserves – the most liquid or high powered form of money - to commercial banks to enable them to settle payments and the maintenance of price stability via this mechanism. Less well documented is that central banks and larger private clearing banks (that discounted bills from smaller note issuing banks) originated chiefly to supply credit directly to state rather than to the rest of the banking system. As noted by Ugolini (2014: 15) even when loans to the commercial banking system became predominant, central banks have often only granted them on condition of commercial banks meeting some form of collateral eligibility criteria that often involved the extension of money to the state: most commonly, that such banks would have hold government debt of various maturities.

In the 20th Century, it has also been the norm in many countries for the central bank to provide liquidity to ministries of finance in times of need. For example in the U.S., the Fed has purchased unlimited quantities of Treasury securities directly through the creation of central bank reserves up until 1981 (Garbade 2014) whilst in the UK up until 2000, when EU law forced its cessation, the government financed a significant proportion of its spending through an overdraft facility at the Bank of England known as the 'Ways and Means' account (Treasury 1997).

The taboo on monetary financing may have its origins in the fact that many of the better known examples of large-scale direct government money creation were for the

purposes of raising funds (nearly always coinage) to fight wars. Wartime typically involves very high levels of inflation as production of standard goods and services is slowed and productivity levels drop at the same time as a massive increase in the money supply, which is required to fund the destructive activities of war (Davies 2002: 646-8; Pigou 1941). Such inflation often persists in the post-war period when resources return to productive use as governments' rarely choose to reduce the money supply. Some of the most widely known historical examples of inflationary war finance are the U.S. "Continental" that were used raise funds to fight the War of Independence against the British and which fell to one-thousandth of their nominal value by the end of the War (Davies 2002 :647; Lester 1938: 3). In Europe, the stigma associated with government money is perhaps stronger, with examples including the *assignats* of the French Revolution, the post WWI hyper-inflation in Germany and Austria and the world's largest ever hyper-inflation in Hungary in 1946 (Hanke and Kwok 2009).

Interestingly, public and political concerns about the inflationary consequences of government money creation were not complemented in economic thinking until the monetarist 'counter-revolution' of the 1970s and 1980s. In the 1930s and 40s both conservative and more conservative economists advocated forms of monetary financing to ward off the Great Depression.

A number of free-market orientated early 'Chicago school' economists including Irving Fisher (1936), a (younger) Milton Friedman (1948) and Henry Simons (1951 [1948]) argued that monetary financing of government deficits would create greater stability than bond financing. The so called 'Chicago Plan', written after the Great Depression by Fisher and other economists at Chicago University (Douglas, et al. 1939) argued that private bank credit creation via fractional reserves was inherently unstable, damaging to industry and should be outlawed via the imposition of a 100% reserve ratio – i.e. a return to a public monopoly on money creation.

Writing at a similar time, Keynes (1933: 23), keen for depression-era governments to boost demand through direct money creation ('loan-expenditure'), rued that "hitherto war has been the only object of government loan-expenditure on a large scale which governments have considered respectable." Building on Keynes', Lerner (1943) argued that a sovereign state with a fiat currency should be unrestrained to create sufficient currency to support full employment.

Keynes' views proved more influential and the 1930s-1970s period saw significant formal and informal regulatory controls on private bank credit creation complemented by both direct and indirect instances of monetary financing. Economic historians and political scientists studying the period have paid less attention to monetary than fiscal policy, describing the period as one of Keynesian 'fiscal dominance' enabled by a fixed exchange-rate regime, regulation of capital flows, and high levels of government spending and investment driving aggregate demand (Cobham 2012: 730; Eichengreen 1998).

But these fiscal policies were enabled by accommodating debt-management policies by central banks. Indeed, central banks were often subordinated to ministries of finance and had a wide range of goals aside from price- and financial stability, including the maintenance of historically low interest rates on government debt and bank debt and the maintenance of exchange-rate parities (Cobham 2012: 730; Epstein 2006; Goodhart 2010:2-4; Pixley, et al. 2013:39-41). Without supportive domestic monetary policy, it is not clear how such policies could have been enacted given the very high debt-GDP ratios facing most countries in the post-WWII period.

Mainstream economists who have paid more attention to monetary policy during the period have tended describe such policies as damaging to free market growth, using perjorative terms such as ‘financial repression’ – see, for example, Shaw (1973), McKinnon (1973) and, more recently, Roubini and Sala-i-Martin (1992) and Reinhart and Sbrancia (2011). A limited number of political economists have emphasised the important role of monetary policy in the period and how it supported industrial policy (Epstein and Schor 1991; and Tily 2007; Zysman 1983)

The concept of central bank independence and the modern prohibition on monetary financing arose out of the ‘great inflations’ of the 1970s and 1980s that undermined faith in the Keynesian policies that dominated the previous decades. In influential and international economics and policy circles, these inflations were constructed as being due to excessively lax monetary policies, fiscal profligacy and excessive budget deficits rather than the exogenous shocks of the oil crises, the collapse of Bretton Woods and resulting volatility in international capital flows (Johnson 1971). Monetarism re-emerged, building on new empirical evidence linking the money supply to inflation (Friedman and Schwartz 1963). Meanwhile, in the field of monetary economics, the rational expectations ‘revolution’ was underway. Inflation expectations could easily get out of control if agents lost faith in governments and central banks to control prices or deficits (Kydland and Prescott 1977). Central banks should thus be operationally independent to pursue publically agreed targets on inflation as they wish (Walsh 1995). Importantly, this ‘independence’ should include being free of any obligation to lend to governments or buy government securities- in other words governments should not be able to demand monetary financing (Blinder (1999)).⁴ The consequence is that governments are forced to finance all their spending via either taxation or borrowing from financial markets. Monetary and fiscal policy are thus completely separated and governments subject to the same market discipline as commercial companies or households (Ingham 2004:190).

The theory of Central Bank Independence (CBI) gained traction in the late 1980s following the publication of a number of empirical papers showing a negative correlation between indices of CBI and inflation, with prohibition or restrictions on central bank financing of government debt included as one such measure (Alesina 1988; Cukierman, et al. 1992; Grilli, et al. 1991). These coincided with incidences of very high and damaging inflation in South America and Eastern Europe in the 1980s and 1990s (Sachs 1986). By the 1990s, central bank independence and with it the

⁴ see Arestis and Sawyer (2008) and Epstein and Yeldan (2008) for critical accounts.

prohibition of monetary financing became increasingly popular and a key tenet of the neo-liberal regime that became dominant in western countries. International regulatory and supervisor bodies, such as the IMF, the World Bank and the Bank of International Settlements, fully embraced the concept. In the EU, a key requirement of the Maastricht Treaty was that member states prohibit the direct financing of government spending by any EU central bank. The policy applies to all EU members, even those, like the UK, outside of the Eurozone.⁵

3. Monetary financing in Canada

3.1 Canada in context – the 1930s-1970s period

In the 1930s two major events combined that lead to a rethink of monetary financing as part of a more general tendency to reconceptualise central banking. Firstly, in countries which already had central banks, the deflation and unemployment of the Great Depression led to the abandonment of the Gold Standard and a re-think of monetary authorities' role vis-à-vis government and the financial sector (Brown 2013:ch.14-20; Goodhart 2010; Pixley, et al. 2013:4; Vernengo and Caldentey 2014). In addition, in a number former colonies, such as Canada, New Zealand, Australia and India, new central banks were set up to help establish national monetary sovereignty from Great Britain (Epstein 2006:4). Their origins thus do not fit the classic explanation of central bank emergence as a means of supporting sovereign war efforts, existing private banking interests or the more efficient running of the financial system (see e.g., Capie, et al. 1994; Goodhart 1988).

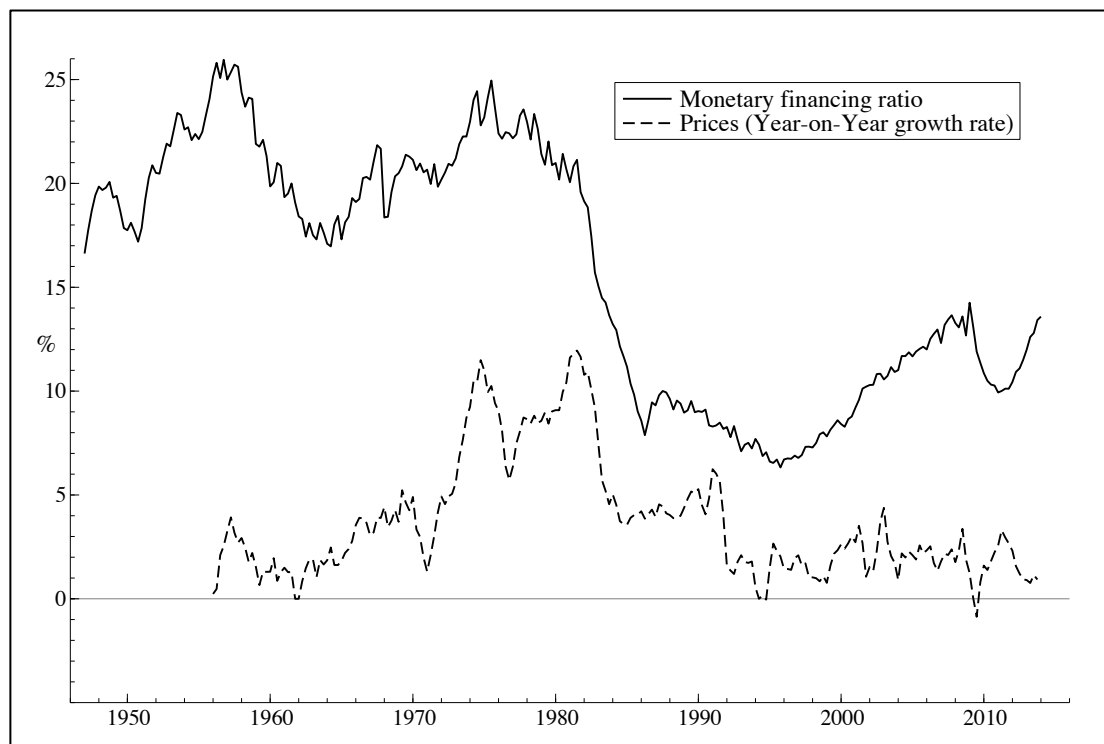
Although Britain, as the owner of worlds' only global currency unit in the 1930s, did its best to convince its ex-colonies to create 'independent' central banks focussed on price stability (against sterling) over and above other macroeconomic concerns (Cain 1996). Nevertheless, progressive coalitions emerged in these countries that questioned such arrangements and led to open debates about the control of monetary production. In this sense the period can be seen as one where the 'naturalisation' of the social conventions around monetary production became contested, as in the post-bellum Greenbacker-Bullionist debates in the U.S. (Carruthers and Babb 1996). From a Weberian perspective, the period can be seen as one where the production of money came under the sway of democratic government, industry and the debtor class more generally, in contrast to the financial sector.

The activities of the Canadian central bank from the period of its inception in 1935 to the early 1970s constitute an example of how a central bank, working closely with the state, used indirect and direct monetary financing policies to support industrial development, debt management, and macroeconomic goals that go significantly beyond financial stability and price stability. As shown in Figure 1, between 20 and 25% of Canadian public debt was financed and held by the central bank and government from the end of the Second World War up to the early 1980s. This was a

⁵ Consolidated Version of the Treaty on the Functioning of the European Union. Retrievable from <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:115:0047:0199:EN:PDF> [accessed 14 June 2011).

successful period for the Canadian government with high levels of growth and inflation was below 5% right up until the early 1970s (figure 1).

Figure 1: Monetary financing and inflation in Canada, 1958–2012



Note: Monetary financing ratio is the proportion of total public debt held by the Bank of Canada or government. **Source:** Canadian Statistics, CANSIM Table 176-022; Prices are the YoY growth rate of the Canadian Consumer Price Index (2010=100) from the OECD (2010) MEI.

Here we focus on how the monetary financing activities of the Bank of Canada supported the economy in two areas. First, lifting Canada out of the Great Depression of the 1930s and the subsequent war mobilisation, which involved substantial direct and indirect (via chartered banks) credit creation to fund government war spending. Secondly, post-war recovery and industrialisation in the 1950s and 1960s, which saw the central bank support government spending through the maintenance of fixed low rates of bond and Treasury Bill financing and a range of formal and informal guidance to commercial banks.

3.2 Historical origins

Canada was a late adopter of government-issued money and central banking. Competitive fractional-reserve banking with note-issuing banks and without an indigenous central bank was the norm well in to the twentieth century and proved to be remarkably stable, in contrast to the experience of their southern neighbour, the

USA.⁶ Rather than the relatively independent unit banks that emerged in the USA, Canada, introduced by the early nineteenth century Scottish settlers developed a national branch bank network with a relatively small number of large and diversified commercial banks modeled on the concentrated UK branch-banking system (Dow 2016).⁷ The nationwide branch system also suited the needs of a largely agricultural-and-lumber-based economy, with its requirements for seasonal liquidity and with capital spread widely and thinly across a vast continent (Watts 1972: ch1).

The Bank of Canada's creation in 1934 can be viewed as being driven more by domestic political, rather than economic or international, pressures (Bordo and Redish 1987; Cain 1996).⁸ Domestically, there was considerable hostility amongst the Canadian public towards the private banking system, which was held responsible for the deflation experienced during the Great Depression. The Canadian banking system in 1930 was highly concentrated with the three largest banks controlling 75% of industry deposits. There was evidence of collusion within the industry body, the Chartered Bank Association, to artificially constrain the money supply (Bordo and Redish 1987: 415).

A new socialist party, the cooperative Commonwealth Federation, became the official opposition in the provinces of Ontario and Saskatchewan, and proposed the nationalisation of all financial institutions (ibid: 416). There was also pressure for public control of the banking system from the Social Credit party which had major support in the poorer farming areas of the Western Provinces, in particular Alberta where the Social Credit party actually gained power in 1935 (Macpherson 2013 [1950]). The influence of the Social Credit philosophy is evident in the following submission to the Royal Commission that investigated the possibility of creating a central bank by the premier of the Western Province of Manitoba:

We believe that there should be provided machinery to make possible a deliberate policy of publicly controlled credit in Canada... in our judgement this control should be in the hands of institution devised specifically for that purpose, that as far as possible it should be independent of outside political or commercial influence, and that its chief obligation should be to respect and promote the public welfare insofar as sound credit policies can do so... Credit policies should not be kept more or less incidental in a business, the primary purpose of which is considered to be private profit...⁹

The result was that the Bank of Canada Act of 1934, which gave the Bank the sole right to issue bank notes, and determined that the function of the newly formed central

⁶ See Bordo, et al. (1996), and Calomiris and Haber (2014); Gorton and Huang (2002) for discussions.

⁷ There were 40 highly branched banks in Canada between 1870 and 1914 compared to around 18,000 in the USA in 1890 (2014: 283-327).

⁸ Bordo and Redish (1987) reject the more traditional arguments for the creation of the Bank – that a lender of last resort was required for a competitive banking system or that the Bank was needed to stabilise the economy following the abandonment of the gold standard – and find historical and econometric evidence to support a more political motivation for its inception.

⁹ Macmillan Commission Proceedings, volume 4 (Bracken statement), August 24, 1933, pp. 1690-1691, quoted in Fullerton (1986:43)

bank would be:

to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment (Bank of Canada 2008 [1934]).

The Act also assigns the Bank an explicit role in providing monetary financing, stating that “The Bank may...make loans or advances for periods not exceeding six months to the Government of Canada or the government of a province on taking security in readily marketable securities issued or guaranteed by Canada or any province.”¹⁰

Despite vociferous opposition from the Canadian representatives on the British dominated Macmillan Commission that helped set up the Bank and the progressive Liberal party, the Bank of Canada was initially set up with private shareholders following the Bank of England model. However shortly afterwards the Liberal Party won power in the federal election of 1935 and set about nationalising the Bank.¹¹ The Ministry of Finance was given a majority of stock and the board enlarged with government-appointed directors, each of whom had two votes. By 1938, all private holders of stock were forced to sell their shares to the government. In the same year, the first Governor of the Bank, the Canadian Graham Towers asserted the primacy of the state in the conduct of the central banks’ monetary policy, which:

...must conform to the policy of their respective governments. No other conception of the situation is possible in this day and age, nor would any other state of affairs be desirable in view of the vital effects which monetary policy can have on the affairs of the country.¹²

The Bank’s governance structure ensured a close relationship to the government. The Board of directors were appointed for three years by the government whilst the governor, the chair of the board, was to be appointed by the directors with the approval of the government, for a seven-year term during good behavior. The Deputy Minister of Finance would also sit on the Board of Directors but without a vote. Leader of the Party, W. L. Mackenzie King stated that:

“...In no sense should the bank be, or be permitted to become, a banker’s bank. It is and ought to be a government bank, the government being representative of the interest of the country as a whole...” (Williamson 1989).

¹⁰ Bank of Canada Act 2008 [1934], sections 18(i) and (j). Adapted from COMER submission to the Bank of Canada, Amended Claim, 26 March 2015, accessible from www.comer.org

¹¹ Leader of the Party, W. L. Mackenzie King stated that: ‘...In no sense should the bank be, or be permitted to become, a banker’s bank. It is and ought to be a government bank, the government being representative of the interest of the country as a whole...’ (Williamson 1989).

¹² G. F. Towers, in an address to the Montreal Junior Board of Trade, as reported in *The Gazette*, Montreal, 15 March 1938, in Neufeld, 1958, p11.

Under this arrangement it was generally understood that, in case of a serious and basic difference of opinion, a determined government could force the resignation of the governor (Neufeld 1958a: 10-13). This happened only once in 1961 when the government requested the resignation of Governor James Coyne following a breakdown in relations with the Treasury (see section 3.5).

3.3 Early operations and recovery from the Great Depression

The Bank of Canada commenced operations on 11 March 1935 and immediately began to help the Canadian economy out of depression via expansion of the money supply and the maintenance of low interest rates. The Bank pursued a cheap-money policy with the Governor, Graham Towers, strongly rejecting inflationary warnings from monetary conservatives and adopting a stance that emphasized income over above concerns around the total money supply:

...in stimulating business activity the vital matter is not the amount of money in existence, it is the size of people's income, in other words, the size of the national income. This can grow, and does grow, without any definite connection between such growth and a growth in bank deposits or note circulation (Bank of Canada 1936: 12).

Expansion was initially achieved through direct central bank money creation via advances to the state: \$4 million was advanced to the government in 1935 in four installments, all of which were eventually repaid. However, the vast bulk of financing was achieved through the Bank's active participation and shaping of the Canadian government bond market.

The Bank conducted four main kinds of activity in this area (Neufeld 1958a: 81-111). First, it undertook direct deficit-financing through purchases of government securities from the government; secondly, it pumped large quantities of cash reserves into the chartered banks via bond purchases and maintained a low bank rate to ensure they had sufficient liquidity to further finance the government via direct purchase of securities. This can be seen as a form of indirect monetary financing via private bank monetisation of government debt (Watts 1972: 54). Thirdly, via these two operations and the development of a short-term Treasury Bills market, the Bank ensured low yields on government bonds throughout the period, thus reducing the cost of deficit-financing; fourth, working with the Department of Finance, it developed illiquid 'deposit certificates' – usually with a six-month maturity – that enabled the government to raise short-term finance directly from the chartered banks (Aschah 1999: 108-111).

In the pre-war period, between 1935 and 1939, the Bank played a major role in Canada's recovery from the Great Depression, funding over two-thirds of government expenditure over these five years.¹³ Nominal GNP expanded by 77% in contrast to the

¹³ It purchased a total of \$852 million of government debt, almost one-third of which was Treasury bills. Government expenditure in the same period was \$2,476 million Source: Statistics Canada, Series J55-74: Bank of

70% contraction in the previous five years, with a sharp increase in capital investment and private expenditure.¹⁴ Bank deposits expanded by a similar amount, while currency in circulation increased by 70%.¹⁵ Deflation was reversed but inflation remained stable despite the massive expansion in the money supply.

3.4 War-time financing

During the war, monetary and fiscal policy effectively became one as the Bank of Canada supported the government's efforts to mobilise resources without resistance. With still considerable levels of unemployment and spare productive capacity, the government initially embarked on a policy of 'deliberate monetary expansion', mainly via loans from chartered banks (McIvor 1958: 176). This was enabled by the Bank's controlling role of both chartered private bank cash and more general influence on the banks and the bond market (ibid.).

The Bank also enabled Canada to nationalise its debt, reducing the non-resident holdings of government debt from one-third of the total to a few percent after negotiations with the British government for the repatriation of Canadian foreign pay securities (Fullerton 1962: 59). A number of large Victory war loans saw a rapid expansion in residential and institutional holdings of government debt, around a quarter of which was monetarily financed via credit creation through an expansion in bank loans to households for such purchases (Neufeld 1958a: 155),¹⁶ as well as the central bank expanding its purchases. The Bank engineered a long period of 'cheap money', with long-term rates staying around 3% until the late 1950s and shorter-term rates at less than 1% (see figure 2).

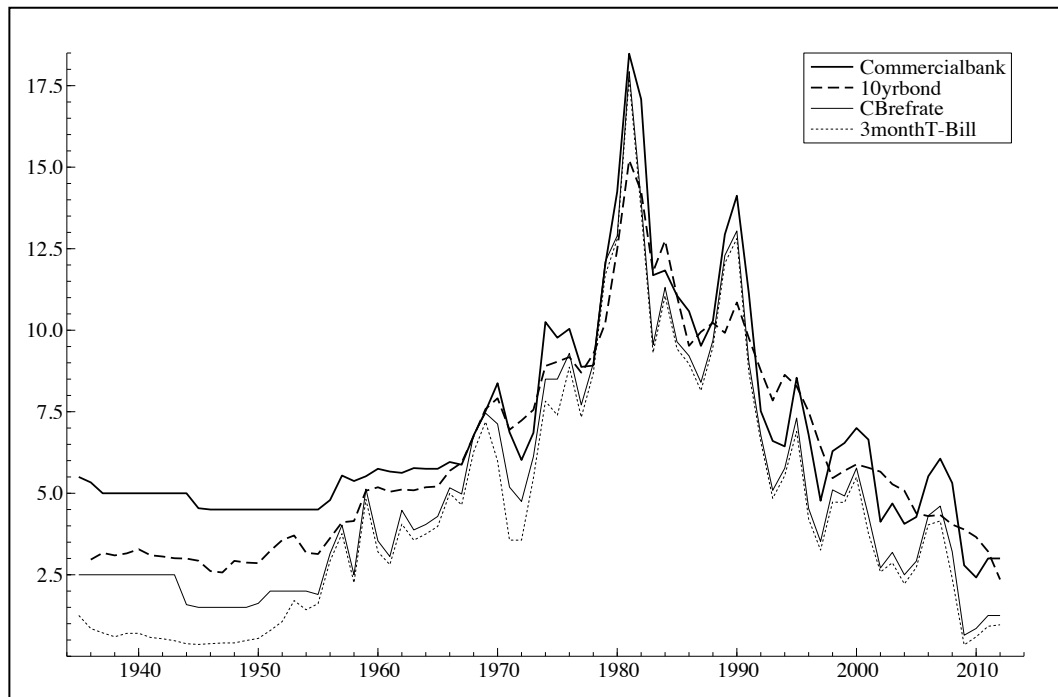
Canada, assets and liabilities, 1935 to 1977. <http://www.statcan.gc.ca/pub/11-516-x/sectionj/4147440-eng.htm#2>: Bank of Canada Review, Series J471-480: Bond and stock yields, annual averages, 1934-1977, Table 20.

¹⁴ Downloaded from IMF 'Public Finances in Modern History' database – see International Monetary Fund (2013).

¹⁵ Statistics Canada, section J, Table J1-10 and J11-20, available online at <http://www.statcan.gc.ca/pub/11-516-x/sectionj/4147440-eng.htm#1>

¹⁶ Bank loans for the first Victory war loan of June 1941 were \$135,978,539 out of a total subscription of \$730,000,000, whilst for the Second Victory Loan they were \$209,800 out of a total subscription of \$845,000,000 (Kindleberger 1942: 4). Figures for later loans were not available.

Figure 2: Canada annual interest rates, 1935-2012



Source: Canadian Statistics, CANSIM Table 176-0043

During the war period, \$517.8 million of securities were bought directly from the government with newly created central bank money and by converting numerous maturing securities into new Government of Canada issues (McIvor 1958: 174; Neufeld 1958a: 145). As Plumtre (1941: 155-156) remarks, the effect of this increase in note issue was to provide ‘a sort of interest-free loan to the Government through the medium of the Bank of Canada’. The Bank issued the notes at virtually zero cost to itself, whilst the profits paid to it by the government for holding government debt were all paid back to government which owned all of its stock.

From 1941 to 1943, the government borrowed \$1,165 million directly from the chartered banks, of which \$715 million were illiquid deposit certificates issued at 3/8ths of 1% (Neufeld 1958a: 133).¹⁷ The central bank accommodated such purchases and maintained a low yield on government debt (2.2%) by providing the chartered banks with sufficient liquidity to enable them to maintain their preferred cash ratio of 10% (Neufeld 1958a: 134). This policy continued in 1944 when the government reduced the bank rate and provided the banks with ‘more reserves than they had ever had before’ (Neufeld 1958a: 138). As a result, the chartered banks bought huge quantities of government securities and ensured easy money conditions for the government and general public.¹⁸

¹⁷ The deposit certificates were based on a similar policy instigated by Keynes in the UK to support Britain in the War - see Howson (1985: 252-253). As they were non-marketable, they prevented banks from using them to expand their balance sheets by trading them for T-bills or cash (Tily 2007: 205). For a discussion, see Ascah (1999: 108-111) who notes the initial resistance of the chartered banks to the low rate of interest they would earn.

¹⁸ See McIvor (1958:165-201) for a detailed account of the role of the Bank of Canada in financing the war, including statistical tables.

There was little evidence that such war-time spending was inflationary, despite the historical precedents described in Section 2. The huge increases in the money supply and credit engineered by the Bank were mainly absorbed by a vast expansion in industrial production, which increased by 28% between 1939 and 1941, matched by a similar increase in employment (McIvor 1958: 184; Parkinson 1941: 42). As the war went on and as production and employment began to reach near capacity, the government increased taxation or non-monetised borrowing from the public and reduced borrowing from the banking sector which was effective in relieving inflationary pressures, without any raising of interest rates (McIvor 1958: 184).

3.5 The post-war period, 1945–1975

The White Paper on Employment and Income of 1945 described the Canadian government's immediate post-war fiscal and economic policies (Canadian Parliament 1945). It outlined the government's intention to adopt Keynesian expansionary economic policies to maintain the high level of employment and income that had been reached during the war period. Deficits would be incurred and national debt increased when unemployment threatened, but would be balanced by surpluses in periods of prosperity (Franks 2006 [1945]). Furthermore, the government stated that it 'proposes to pursue a monetary policy which will encourage, through low interest rates, the investment of funds in productive capital contributing to employment' (Deutsch 1957: 222). The 15-year period that followed was one of most prosperous in Canadian history, with high growth, the maintenance of full employment, and budgetary surpluses for most of the period.

As well as supporting business financing, the Bank of Canada continued its Keynesian policy of ensuring easy and cheap finance for government to support fiscal expansion and maintain the policy of full employment. Changes to the short-term interest rate were generally not seen as a useful policy instrument for dealing with inflation during the 1950s (Neufeld 1958b); instead fiscal policy took on much of the responsibility for dampening the inflationary surges that inevitably followed the war, via increases in taxation and repeated budget surpluses (Deutsch 1957).

Although the bank did make use of open market operations, it also employed more direct methods, in particular formal or more informal credit controls and requirements on the holding of government securities. In a review of this activity in the post-war period, Chant and Acheson (1972: 18) note that the Bank either obtained new agreements or altered existing agreements with chartered banks in 12 of the 24 years from 1946 to 1969 and that many of the agreements extended beyond the year in which they were made. These included limits on the holdings of government securities by chartered banks, limits or credit ceilings on total loans and term loans, minimum liquid asset ratios, limits on lending to consumer finance companies, special consideration to small borrowers and mortgages for new homes, maximum interest rates on term deposits, ceilings on 'swap' deposits, special attention to small

businesses and to borrowers in ‘less prosperous areas of the country’ as well as a number of interventions to support the balance of payments in the late 1960s (Chant and Acheson 1972; McIvor 1958: 156-157; Neufeld 1958a: 75-80).

In addition, more informal ‘moral suasion’ was also used, defined by the Bank as: ‘a wide range of possible initiatives by the central bank designed to enlist the co-operation of commercial banks or of other financial organisations in pursuit of some objective of financial policy’ (Canada; 1962: 37). These initiatives varied from a ‘general exchanges of views’ to ‘efforts by the central bank to achieve, through suggestion, discussion and persuasion, specific changes... in policies or practices of private financial institutions’ (ibid.:38). McIvor (1958: 156-7) notes that the high concentration of ownership among the chartered banks made moral suasion effective in Canada in contrast to other countries with more diversified ownership structures. The important role of the Bank in the war appeared to considerably strengthen the Bank’s credibility and ability to influence lending.

One particularly interesting example that illustrates the Bank’s focus on supporting government finance over other objectives is its role in the introduction of the short-term money market in 1954. Ostensibly, the purpose was to enhance the overall efficiency and flexibility of monetary policy by broadening the public’s holdings of government debt or Treasury Bills (Wilson 1966: 295). The money market was a means for the Bank to further subsidise the cost of government debt by increasing the quantity of short-term government debt held by chartered banks Acheson and Chant (1973). One year after the introduction of the money market, the Bank enforced a 15% ratio of liquid assets (which we limited at the time to government securities) to deposits ratio on a daily average basis for chartered banks.

At the same time the Bank encouraged Canada’s money market dealers to hold Treasury Bills rather than cheaper Banker’s acceptances as a form of collateral for their day-to-day loans which chartered banks used to maintain their cash positions. Depending as they did on the Banks’ lines of credit for their dealings, the money market dealers did just this – at a financial loss to themselves – but the effect was to force the chartered banks to also hold Treasury Bills as their main liquid asset rather than relying on cheaper acceptances (Chant and Acheson 1972).

Chartered bank holdings of Treasury debt expanded 6-fold, whilst the public’s holdings of Treasury Bills actually declined over the period (Acheson and Chant 1973: 648). Thus short-term government borrowing for this period was largely funded via enforced private bank credit creation rather than from public savings – again a form of monetary financing or ‘financial repression’ as the economics literature puts it. The policy can also be seen as a tool of monetary policy of course, since the subsidy provided by the banks was equally a cost to them that reduced their profits and thus capital (Neufeld 1958b: 210).

When inflation did threaten Canada, the Bank used quantitative credit controls rather than raising interest rates. Two bouts of serious inflation occurred in the period 1947–

1953 and can be mainly attributed to very large capital inflows from the United States generated by investment opportunities in the resource sector and accelerated by the onset of the Korean War (Bordo and Redish 2006; Neufeld 1958a: ch. VI).¹⁹ In response, in February 1951 the Bank imposed a credit ceiling on all chartered banks which was effective, with deposits stabilising until the removal of the control in May of 1952 (McIvor 1958: 220).

The 1957 Annual Report of the Bank indicates that it remained actively concerned with the allocation of credit, despite the inflationary pressures, and in particular ensuring that there was sufficient finance for smaller businesses and households:

... During 1957, as in 1956, we have in discussions with the chartered banks expressed concern for the position of these small borrowers... Even if small borrowers are assured of non-discriminatory treatment by the banks they may be handicapped relative to large borrowers.... The first call on the resources of the national branch banking system must, I think, be to fill the creditworthy needs for banking accommodation of small businesses, institutions, farmers and individuals-including a reasonable level of loans for housing in all the various localities across Canada (1957: 20-21).

More serious domestic inflationary pressures also arose in the late 1950s and led the Bank to impose more restrictive monetary policies in earnest for the first time since the war, raising interest rates and selling securities in to the market along with new liquidity reserve ratios. But inflation continued in to the 1960s along with rising unemployment. A major disagreement broke out during the period between the conservative central bank governor, James Coyne, who refused to increase the money supply to enable the conversion of war loans in to peace loans and the Ministry of Finance which wished to engineer such a transfer via Bank of Canada purchases. The strength of Keynesian policies was clear by the fact that Coyne was forced to resign in 1961, the first time and only time this has happened since the formation of the Bank of Canada. (Coleman 1991: 721). This crisis led to a collapse of the currency against US dollar and the decision to re-join the Bretton Woods system in 1962. For the remainder of the 1960s, monetary policy was once again subservient to the full employment agenda of the government and the Bank continued to maintain low interest rates on government debt through its controlling role in the bond market and credit controls.

The low interest rates engineered by the Bank's control of the bond market (figure 2) supported a huge expansion in production in the period 1945—1970, a good part financed by government capital spending which reached was around 20% of total fixed capital investment for most of the 1960s. Federal government capital expenditure funded highways, airports, bridges, schools, hospitals, and other physical infrastructure. The rates of growth of both GDP and productivity followed the pattern

¹⁹ The Canadian dollar was fixed against the US dollar during the war, and in July 1946, was revalued to parity against the US dollar. In late 1949, Canada joined Britain and a number of other countries in devaluing against the dollar, returning to the wartime rate of 90 cents.

of public capital formation during this period (Seccareccia 1995) but then begun to decline in the late 1960s and 1970s. The the growth of labour productivity in Canadian goods production slowed from an average 5.29% per annum in 1947–1972, to 1.87% in 1973–1991, whilst public infrastructure capital accumulation per person-hour worked fell from 5.93% to 1.21% per annum Wylie (1995).

During the period 1960–1975, the federal government also introduced virtually all of the major policy innovations that make up Canada’s system of social programmes: Canada-wide medicare, universal pensions, the modern Unemployment Insurance system, and cost-sharing with the provinces for higher education and welfare. Despite this massive expansion in spending, budgets remained roughly balanced. The average federal deficit from 1950 to 1980 was an insignificant 0.3% of GDP (Stanford 1995: 116). Inflation also remained low and stable, ranging between 2 and 5% (Figure 1).

3.6 The move towards monetarism and inflation targeting

By the mid-1970s, inflation had become a serious issue, hitting double digits in 1975 along with rising employment: a unexpected phenomenon since economic theory held the two were negatively correlated. A wide ranging debate was had in Canada over the causes between monetarists who blamed increases in the money supply (Green 1976) and Keynesians and others who blamed the OPEC oil shocks that resulted in higher energy and food prices, imported U.S. inflation, very high nominal interest rates and financial innovations following the collapse of the Bretton Woods exchange rate agreements (Gordon 1961; Helliwell 1984). Although Canada had a floating exchange rate, it still made every effort to prevent the domestic currency fluctuating too strongly against the U.S. dollar and this was in effect Canada’s nominal anchor (Bordo and Redish 2006: 11).

Canadian central bank planners had lost faith in the ability of Keynesian fiscal policies to reign in inflation and discipline wage settlements. Monetarism offered a clear alternative nominal anchor and was espoused by international financial bodies – the IMF, the BIS and the Federal Reserve - that Canada was both influenced by and influenced itself (Drainville 1995: 7). In September 1975, in what became known as the ‘Sakatoon Manifesto’ the Bank of Canada Governor Gerald Bouey publically committed the Bank to a monetarist policy of “gradualism”, based on the progressive reduction of the growth rate of circulating money (M1) from 10-15 percent in 1975 to 4-8 percent by the end of the exercise in 1982. This form of restraint was to be achieved by gradually raising interest rates which was expected to choke off the demand for money and credit. Relative to the Federal Reserve and many other central banks, the Bank of Canada was much more committed to the monetarist rhetoric in the 1970s, although by 1979 the Fed had embarked on a similarly restrictive path (Bernanke and Mishkin 1992).²⁰

²⁰ The Federal Reserve was not heavily restricted by monetary targets before Paul Volcker became governor in 1979 and began a strict targeting of the U.S. base rate

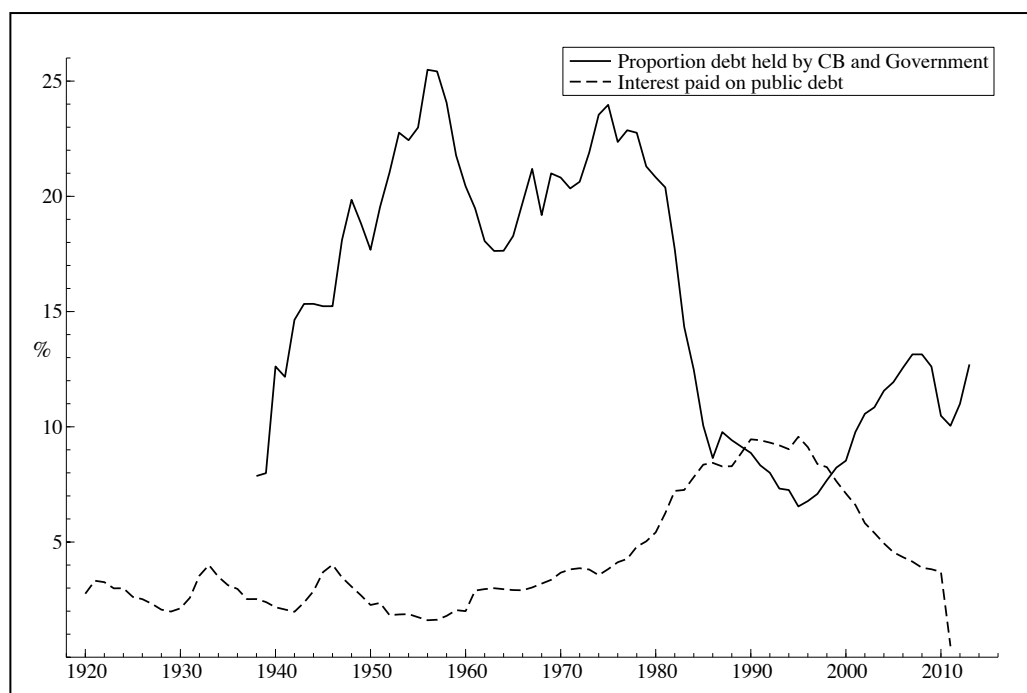
The monetarist experiment, although successful in reducing M1, was unsuccessful in bringing down inflation, as financial innovations led households to shift their money out of bank deposits and in to other forms of higher-interest bearing accounts that better protected them against inflation (Freedman 1983). Monetary targeting was finally abandoned in November 1982, in the face of a return to double-digit inflation despite a growth rate of broad money that was *less* than the target rates for most of the 1975 to 1980 period.²¹ However, the focus on attempting to neutralize inflation via high interest rates continued. By 1983, inflation was back under control, despite the lack of any form of explicit nominal anchor, but it was accompanied by a major recession and high unemployment.

As well as abandoning the policy of low interest rates, the Bank of Canada also allowed a large decline in its holdings of government debt in the first half of the 1980s (Figure 3). The proportion of government debt held by the Bank was reduced from 20% to 7% in the space of 6 years (Figure 3). Meanwhile foreign holdings of government debt increased from 2.2% in the mid 1970s to 10.9% by 1980 to 22.7% by 1990.²² According to the Bank of Canada and the Department of Finance, the increase in foreign borrowing, while not desirable, was inevitable as larger debt payments necessitated a growing reliance upon foreign lenders (Crow 1993:56; Klein 1996: 41). In reality, the Bank's decision to allow rising real interest rates because of its concern with high inflation led to a rising differential between Canadian and U.S. rates (with the former higher). This in turn led to an increased speculative demand for Canadian debt from abroad, which in turn further drove up the value of the Canadian dollar, leading to further pressure for higher interest rates (McQuaig 1995; Rosenbluth 1992: 63).

²¹

²² Bank of Canada Review: Autumn 1995 (Table G5), January 1988 (Table G5) and April 1982 (Table 22).

Figure 3: Proportion of public debt held by the central bank and government and interest paid on public debt-to-GDP ratio in Canada, 1920–2012 (Annual %)



Sources: Interest paid on public debt/GDP from (International Monetary Fund 2013); Debt held by Bank of Canada and Government 1938–1945: ‘Government of Canada Direct and Guaranteed Securities: Annual Distribution of Government debt holdings’, Bank of Canada, Statistical Summary, Financial Supplement 1959, p56, available online at <https://archive.org/stream/statisticalsumma1959bank#page/n619/mode/1up>, p620; from 1946–2012, Statistics Canada, Table Government of Canada direct and guaranteed securities and loans, monthly, converted to annual via averaging, available online at www.statcan.gc.ca

With double-digit interest rates on long and short term government debt (figure 2), this inevitably led to a jump in the proportion of government spending that had to be committed to interest payments that leaked out of the public purse and increasingly leaked out of the country. Rather than such interest payments returning to the government as Central Bank profits, they were now flowing to private sector lenders. Canada had reverted back to private sector dominance of money creation and the bond market ‘financial repression’ was over.

The major casualty of this shift appears to have been government capital investment, which collapsed from a peak of 20% of total public expenditure in the mid-1960s down to single digits by the 1980s (Seccareccia 1995: 57). The 1980s and 1990s saw a more gradual reduction in public expenditure and privatisations but transfer payments actually grew as a proportion of total government expenditure as unemployment rose, further increasing budget deficits. Federal programme spending (excluding interest payments) declined, however, as a share of GDP from 18% in 1975 to just over 15% by the first half of 1995 (Stanford 1995: 116).

Beginning in the late 1990s, the Bank began to increase its purchases of government debt (Figure 3) via open market operations although this was, officially, part of its new inflation targeting mandate. In comparison to the period 1935–1975, however,

levels of debt monetisation were still considerably lower. Output growth has also been lower across the period and the average unemployment rate has been almost double that of the period 1946–1974 – 4.7% as against 8.6%.²³

4. Conclusion and discussion

The governance of money and credit creation in capitalist economies remains high on the agenda of social scientists, economists and policy makers as central banks in the post-crisis era continue to experiment with unconventional monetary policies. But there has been little evidence of a return to the growth levels of the pre-2008 period. Debate has been focused on whether these unorthodox policies – Quantitative Easing in particular – muddies the institutional division between the two key planks of macroeconomic policy: monetary and fiscal policy. Some have argued that central banks should be given full powers to create all new money in the economy, subject to scrutiny by parliament (Benes and Kumhof 2012; Dyson and Jackson 2013) whilst others have suggested that a proportion of government debts could be monetized without handing over full control of the money power to the state (Turner 2015). But there has been very little examination of historical examples of monetary financing its social and institutional dynamics.

This paper has provided insights in to how monetary financing can and did work reasonably effectively for a 40 year period in Canada. A combination of frustration with an overly concentrated banking system, a lively social reform movement and a desire for economic and political independence from colonial powers came together to shape the creation of the Bank of Canada. Its remit from the start was focused on supporting the goals of the government rather than the interests of creditor classes.

The central bank during this time played a key role in the economic development of the country that went well beyond the traditional ‘independent’ central bank role of maintaining price or financial stabilisation. The Bank used its money creating powers to support the government and wider economy through direct advances to the state, direct or indirect forms of government debt monetisation, including forcing private banks to monetise government debt at very low interest rates and nationalizing the debt. More generally, the Bank used its authority to cajole private banks in to supporting those sectors of the economy deemed of national importance, in particular small and medium sized enterprises and export sectors, via credit controls and moral suasion. Such tools have been out of fashion for many years but, post the financial crisis of 2008, macroprudential policy makers are once again looking this historical period for guidance (Aikman, et al. 2016).

²³ Sources: 1946–1977: Statistics Canada, Unemployment Series D190-204 and Labour Force Series D463-469, available online at <http://www.statcan.gc.ca/pub/11-516-x/index-eng.htm#U>; 1975-2013: OECD, Main Economic Indicators - complete database, Main Economic Indicators (database), <http://dx.doi.org/10.1787/data-00052-en> [accessed 29 July 2014] OECD descriptor ID: LRUNTTTT

One cannot of course generalize too widely about the nature of monetary governance from one historical case. More comparative research is needed to identify common dynamics across other countries that engaged in similar policies in the 1930s-70s period. Nevertheless, contrary to the 'taboo', it does not appear that the monetization activities conducted by the Bank resulted in excessive inflation nor excessive deficits. Fiscal policy and credit controls were used actively to prevent inflation, enabled by the close cooperation between the Canadian Ministry of Finance and the Central bank. And budget deficits were kept under control via the Bank's control of the bond markets. In the period 1948 to 1979 the annual growth rate of the Canadian economy exceeded the rate of interest on Government of Canada long-term bonds in all but six years (Rosenbluth 1992: 69).

Ultimately, however, the post-war political coalition that gave birth to the Bank of Canada was unable to defend its Keynesian monetary financing policies in the face of the violent inflations of the 1970s. In the search for a new monetary anchor after the collapse of Bretton Woods, successive central bank governors and governments first embraced monetarism and later inflation targeting. The high interest rates that followed created speculative foreign and private demand for government debt that allowed the Central bank to quietly disengage from its support for monetary financing.

Today, modern economies are equally facing high public and private debts but have the opposite problem on interest rates: they are excessively low and limiting conventional monetary stimulus. The Canadian case demonstrates how central banks could potentially help governments stimulate such economies. But whether we have yet reached the point where the fiscal/monetary policy divide can be breached in the way the Canadian post-war model managed remains to be seen.

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